

High quality epitaxial layers of monocrystalline materials can be grown overlying monocrystalline substrates such as large silicon wafers by forming a compliant substrate for growing the monocrystalline layers. One way to achieve the formation of a compliant substrate includes first growing a monocrystalline binary metal oxide material layer (14) on a substrate (12). The binary metal oxide material layer (14) is lattice matched to both the underlying substrate (12) and the overlying monocrystalline material layer (16).

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